

```

<110> FESENKO, Evgeny Evgenyevich
      NOVOSELOV, Vladimir Ivanovich
      YANIN, Vadim Alekseevich
      LIPKIN, Valery Mikhaylovich
      SHUVAEVA, Tatyana Maratovna

<120> ANTIOXIDANT PHARMACEUTICAL COMPOUND, METHOD FOR PRODUCING
      POLYPEPTIDE AND METHOD OF CURE

<130> u015763-7

<140> 10/534238
<141> 2005-05-06

<150> PCT/RU03/00473
<151> 2003-11-05

<160> 8

<170> PatentIn version 3.3

<210> 1
<211> 715
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> CDS
<222> (44) .. (715)

<400> 1
cgggttgcttg ctgtcccagc ggcgccccct catcacgctc gcc atg ccc gga ggt 55
Met Pro Gly Gly
1

ctg ctt ctc ggg gac gtg gct ccc aac ttt gag gcc aat acc acc gtc 103
Leu Leu Leu Gly Asp Val Ala Pro Asn Phe Glu Ala Asn Thr Thr Val
5 10 15 20

ggc cgc atc cgt ttc cac gac ttt ctg gga gac tca tgg ggc att ctc 151
Gly Arg Ile Arg Phe His Asp Phe Leu Gly Asp Ser Trp Gly Ile Leu
25 30 35

ttc tcc cac cct cgg gac ttt acc cca gtg tgc acc aca gag ctt ggc 199
Phe Ser His Pro Arg Asp Phe Thr Pro Val Cys Thr Thr Glu Leu Gly
40 45 50

aga gct gca aag ctg gca cca gaa ttt gcc aag agg aat gtt aag ttg 247
Arg Ala Ala Lys Leu Ala Pro Glu Phe Ala Lys Arg Asn Val Lys Leu
55 60 65

```

att gcc ctt tca atc agt gtt gag gac cat ctt gcc tgg ggc aag 295
 Ile Ala Leu Ser Ile Asp Ser Val Glu Asp His Leu Ala Trp Ser Lys
 70 75 80

gat atc aat gct tac aat tgt gaa gag ccc aca gaa aag tta cct ttt 343
 Asp Ile Asn Ala Tyr Asn Cys Glu Glu Pro Thr Glu Lys Leu Pro Phe
 85 90 95 100

ccc atc atc gat gat agg aat cgg gag ctt gcc atc ctg ttg ggc atg 391
 Pro Ile Ile Asp Asp Arg Asn Arg Glu Leu Ala Ile Leu Leu Gly Met
 105 110 115

ctg gat cca gca gag aag gat gaa aag ggc atg cct gtg aca gct cgt 439
 Leu Asp Pro Ala Glu Lys Asp Glu Lys Gly Met Pro Val Thr Ala Arg
 120 125 130

gtg gtg ttt gtt ttt ggt cct gat aag aag ctg aag ctg tct atc ctc 487
 Val Val Phe Val Phe Gly Pro Asp Lys Lys Leu Lys Leu Ser Ile Leu
 135 140 145

tac cca gct acc act ggc agg aac ttt gat gag att ctc agg gta gtc 535
 Tyr Pro Ala Thr Thr Gly Arg Asn Phe Asp Glu Ile Leu Arg Val Val
 150 155 160

atc tct ctc cag ctg aca gca gaa aaa agg gtt gcc acc cca gtt gat 583
 Ile Ser Leu Gln Leu Thr Ala Glu Lys Arg Val Ala Thr Pro Val Asp
 165 170 175 180

tgg aag gat ggg gat agt gtg atg gtc ctt cca acc atc cct gaa gaa 631
 Trp Lys Asp Gly Asp Ser Val Met Val Leu Pro Thr Ile Pro Glu Glu
 185 190 195

gaa gcc aaa aaa ctt ttc ccg aaa gga gtc ttc acc aaa gag ctc cca 679
 Glu Ala Lys Lys Leu Phe Pro Lys Gly Val Phe Thr Lys Glu Leu Pro
 200 205 210

tct ggc aag aaa tac ctc cgc tac aca ccc cag cct 715
 Ser Gly Lys Lys Tyr Leu Arg Tyr Thr Pro Gln Pro
 215 220

<210> 2
 <211> 224
 <212> PRT
 <213> Homo sapiens

<400> 2

Met Pro Gly Gly Leu Leu Leu Gly Asp Val Ala Pro Asn Phe Glu Ala
 1 5 10 15

Asn Thr Thr Val Gly Arg Ile Arg Phe His Asp Phe Leu Gly Asp Ser
 20 25 30

Trp Gly Ile Leu Phe Ser His Pro Arg Asp Phe Thr Pro Val Cys Thr
 35 40 45

Thr Glu Leu Gly Arg Ala Ala Lys Leu Ala Pro Glu Phe Ala Lys Arg
 50 55 60

Asn Val Lys Leu Ile Ala Leu Ser Ile Asp Ser Val Glu Asp His Leu
 65 70 75 80

Ala Trp Ser Lys Asp Ile Asn Ala Tyr Asn Cys Glu Glu Pro Thr Glu
 85 90 95

Lys Leu Pro Phe Pro Ile Ile Asp Asp Arg Asn Arg Glu Leu Ala Ile
 100 105 110

Leu Leu Gly Met Leu Asp Pro Ala Glu Lys Asp Glu Lys Gly Met Pro
 115 120 125

Val Thr Ala Arg Val Val Phe Val Phe Gly Pro Asp Lys Lys Leu Lys
 130 135 140

Leu Ser Ile Leu Tyr Pro Ala Thr Thr Gly Arg Asn Phe Asp Glu Ile
 145 150 155 160

Leu Arg Val Val Ile Ser Leu Gln Leu Thr Ala Glu Lys Arg Val Ala
 165 170 175

Thr Pro Val Asp Trp Lys Asp Gly Asp Ser Val Met Val Leu Pro Thr
 180 185 190

Ile Pro Glu Glu Glu Ala Lys Lys Leu Phe Pro Lys Gly Val Phe Thr
 195 200 205

Lys Glu Leu Pro Ser Gly Lys Lys Tyr Leu Arg Tyr Thr Pro Gln Pro
 210 215 220

<210> 3
 <211> 574
 <212> DNA
 <213> Homo sapiens

<220>
<221> CDS
<222> (44) .. (574)

<400> 3

cgg	ttg	cttg	ctg	cccc	cagc	ggc	gcccc	cct	cat	cacc	gtc	gcc	atg	ccc	gga	ggt	55
													Met	Pro	Gly	Gly	
													1				
ctg	ctt	ctc	ggg	gac	gtg	gct	ccc	aac	ttt	gag	gcc	aat	acc	acc	gtc	103	
Leu	Leu	Leu	Gly	Asp	Val	Ala	Pro	Asn	Phe	Glu	Ala	Asn	Thr	Thr	Val		
5					10					15					20		
ggc	cgc	atc	cgt	ttc	cac	gac	ttt	ctg	gga	gac	tca	tgg	ggc	att	ctc	151	
Gly	Arg	Ile	Arg	Phe	His	Asp	Phe	Leu	Gly	Asp	Ser	Trp	Gly	Ile	Leu		
				25				30					35				
ttc	tcc	cac	cct	cgg	gac	ttt	acc	cca	gtg	tgc	acc	aca	gag	ctt	ggc	199	
Phe	Ser	His	Pro	Arg	Asp	Phe	Thr	Pro	Val	Cys	Thr	Thr	Glu	Leu	Gly		
			40					45					50				
aga	gct	gca	aag	ctg	gca	cca	gaa	ttt	gcc	aag	agg	aat	ggt	aag	ttg	247	
Arg	Ala	Ala	Lys	Leu	Ala	Pro	Glu	Phe	Ala	Lys	Arg	Asn	Val	Lys	Leu		
	55						60					65					
att	gcc	ctt	tca	ata	gac	agt	gtt	gag	gac	cat	ctt	gcc	tgg	agc	aag	295	
Ile	Ala	Leu	Ser	Ile	Asp	Ser	Val	Glu	Asp	His	Leu	Ala	Trp	Ser	Lys		
	70					75				80							
gat	atc	aat	gct	tac	aat	tgt	gaa	gag	ccc	aca	gaa	aag	tta	cct	ttt	343	
Asp	Ile	Asn	Ala	Tyr	Asn	Cys	Glu	Glu	Pro	Thr	Glu	Lys	Leu	Pro	Phe		
85					90					95					100		
ccc	atc	atc	gat	gat	agg	aat	cgg	gag	ctt	gcc	atc	ctg	ttg	ggc	atg	391	
Pro	Ile	Ile	Asp	Asp	Arg	Asn	Arg	Glu	Leu	Ala	Ile	Leu	Leu	Gly	Met		
					105					110				115			
ctg	gat	cca	gca	gag	aag	gat	gaa	aag	ggc	atg	cct	gtg	aca	gct	cgt	439	
Leu	Asp	Pro	Ala	Glu	Lys	Asp	Glu	Lys	Gly	Met	Pro	Val	Thr	Ala	Arg		
			120						125				130				
gtg	gtg	ttt	gtt	ttt	ggt	cct	gat	aag	aag	ctg	aag	ctg	tct	atc	ctc	487	
Val	Val	Phe	Val	Phe	Gly	Pro	Asp	Lys	Lys	Leu	Lys	Leu	Ser	Ile	Leu		
		135						140					145				
tac	cca	gct	acc	act	ggc	agg	aac	ttt	gat	gag	att	ctc	agg	gta	gtc	535	
Tyr	Pro	Ala	Thr	Thr	Gly	Arg	Asn	Phe	Asp	Glu	Ile	Leu	Arg	Val	Val		
	150					155					160						
atc	tct	ctc	cag	ctg	aca	gca	gaa	aaa	agg	ggt	gcc	acc				574	
Ile	Ser	Leu	Gln	Leu	Thr	Ala	Glu	Lys	Arg	Val	Ala	Thr					
165						170					175						

<210> 4
<211> 177
<212> PRT
<213> Homo sapiens

<400> 4

Met Pro Gly Gly Leu Leu Leu Gly Asp Val Ala Pro Asn Phe Glu Ala
1 5 10 15

Asn Thr Thr Val Gly Arg Ile Arg Phe His Asp Phe Leu Gly Asp Ser
20 25 30

Trp Gly Ile Leu Phe Ser His Pro Arg Asp Phe Thr Pro Val Cys Thr
35 40 45

Thr Glu Leu Gly Arg Ala Ala Lys Leu Ala Pro Glu Phe Ala Lys Arg
50 55 60

Asn Val Lys Leu Ile Ala Leu Ser Ile Asp Ser Val Glu Asp His Leu
65 70 75 80

Ala Trp Ser Lys Asp Ile Asn Ala Tyr Asn Cys Glu Glu Pro Thr Glu
85 90 95

Lys Leu Pro Phe Pro Ile Ile Asp Asp Arg Asn Arg Glu Leu Ala Ile
100 105 110

Leu Leu Gly Met Leu Asp Pro Ala Glu Lys Asp Glu Lys Gly Met Pro
115 120 125

Val Thr Ala Arg Val Val Phe Val Phe Gly Pro Asp Lys Lys Leu Lys
130 135 140

Leu Ser Ile Leu Tyr Pro Ala Thr Thr Gly Arg Asn Phe Asp Glu Ile
145 150 155 160

Leu Arg Val Val Ile Ser Leu Gln Leu Thr Ala Glu Lys Arg Val Ala
165 170 175

Thr

<210> 5
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificially generated

<400> 5
atcacgtcc atatgcccg agg

23

<210> 6
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificially generated

<400> 6
ccagaattct taaggctggg gtgtg

25

<210> 7
<211> 27
<212> DNA
<213> artificial Sequence

<220>
<223> Artificially generated

<400> 7
gcgaaattaa tacgactcac tataggg

27

<210> 8
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificially generated

<400> 8
ccatccttcg aattcaactt aggtggc

27

<210> 4
<211> 177
<212> PRT
<213> Homo sapiens

<400> 4

Met Pro Gly Gly Leu Leu Leu Gly Asp Val Ala Pro Asn Phe Glu Ala
1 5 10 15

Asn Thr Thr Val Gly Arg Ile Arg Phe His Asp Phe Leu Gly Asp Ser
20 25 30

Trp Gly Ile Leu Phe Ser His Pro Arg Asp Phe Thr Pro Val Cys Thr
35 40 45

Thr Glu Leu Gly Arg Ala Ala Lys Leu Ala Pro Glu Phe Ala Lys Arg
50 55 60

Asn Val Lys Leu Ile Ala Leu Ser Ile Asp Ser Val Glu Asp His Leu
65 70 75 80

Ala Trp Ser Lys Asp Ile Asn Ala Tyr Asn Cys Glu Glu Pro Thr Glu
85 90 95

Lys Leu Pro Phe Pro Ile Ile Asp Asp Arg Asn Arg Glu Leu Ala Ile
100 105 110

Leu Leu Gly Met Leu Asp Pro Ala Glu Lys Asp Glu Lys Gly Met Pro
115 120 125

Val Thr Ala Arg Val Val Phe Val Phe Gly Pro Asp Lys Lys Leu Lys
130 135 140

Leu Ser Ile Leu Tyr Pro Ala Thr Thr Gly Arg Asn Phe Asp Glu Ile
145 150 155 160

Leu Arg Val Val Ile Ser Leu Gln Leu Thr Ala Glu Lys Arg Val Ala
165 170 175

Thr

<210> 5
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Artificially generated

 <400> 5
 atcacggtcc atatgcccgg agg 23

<210> 6
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Artificially generated

 <400> 6
 ccagaattct taaggctggg gtgtg 25

<210> 7
 <211> 27
 <212> DNA
 <213> artificial Sequence

 <220>
 <223> Artificially generated

 <400> 7
 gcgaaattaa tacgactcac tataggg 27

<210> 8
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Artificially generated

 <400> 8
 ccacccctcg aattcaactt aggtggc 27